

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

Claims 1-62 have previously been cancelled.

63. (Currently amended) A load sensing and braking system for a ~~braking~~ system of a vehicle having a vehicle body supported suspended on a ~~rear axle one or more axles~~ by a pressurized gas suspension system unit whose gas pressure is varied in dependence on the vehicle load, the load sensing and braking system comprising:

a variable throttling valve having a valve member movable between a minimum and a maximum throttling positions position to control the flow of a brake operating fluid to a brake actuator of the ~~rear axle one or more axles~~ for applying braking force to a ~~rear~~ at least one wheel of the vehicle;

a pressure sensor for detecting the gas pressure in the suspension unit; a first air bag responsive to the gas pressure in the suspension unit and operable to urge the valve element member towards its the minimum throttling position;

a pressure regulator for supplying a reference fluid pressure at one of a plurality of predetermined reference fluid pressures;

control means operable to select one of said plurality of predetermined reference fluid pressures on the basis of the sensed gas pressure in the suspension unit; and

a second air bag responsive to said selected one of said plurality of reference fluid pressure pressures and operable to urge the valve element member towards it the maximum throttling position.

64. (Currently amended) The load sensing and braking system according to claim 63, wherein the pressure regulator is operable to supply first and second reference pressures, and the pressure sensor provides a first output when the sensed pressure is below a predetermined threshold and a second output when the sensed pressure is above the predetermined threshold, and the control means is operable to provide the first reference fluid pressure to the second air bag when the pressure sensor provides the first output, and to provide the second reference fluid pressure to the second air bag when the pressure sensor provides the second output.

65. (Currently amended) A load sensing and braking system for a vehicle having a vehicle body suspended on one or more axles by a pressurized gas suspension unit whose gas pressure is varied in dependence on the vehicle load, the load sensing and braking system comprising:

a variable throttling valve having a valve member movable between a minimum and a maximum throttling position to control the flow of a brake operating fluid to a brake actuator of the one or more axles for applying braking force to at least one wheel of the vehicle;

a pressure sensor for detecting the gas pressure in the suspension unit;
a first air bag responsive to the gas pressure in the suspension unit and operable to urge the valve member towards the minimum throttling position;

a pressure regulator for supplying a reference fluid pressure at one of a plurality of predetermined reference fluid pressures;

control means operable to select one of said plurality of predetermined reference fluid pressures on the basis of the sensed gas pressure in the suspension unit; and

a second air bag responsive to said selected one of said plurality of reference fluid pressures and operable to urge the valve member towards the maximum throttling position;

~~The load sensing and braking system according to claim 63, wherein the a~~
restoring force of the second air bag increases as the valve element approaches its ~~the~~ minimum throttling position.

66. (Currently amended) A load sensing and braking system for a vehicle having a vehicle body suspended on one or more axles by a pressurized gas suspension unit whose gas pressure is varied in dependence on the vehicle load, the load sensing and braking system comprising:

a variable throttling valve having a valve member movable between a minimum and a maximum throttling position to control the flow of a brake operating fluid to a brake actuator of the one or more axles for applying braking force to at least one wheel of the vehicle;

a pressure sensor for detecting the gas pressure in the suspension unit; a first air bag responsive to the gas pressure in the suspension unit and operable to urge the valve member towards the minimum throttling position;

a pressure regulator for supplying a reference fluid pressure at one of a plurality of predetermined reference fluid pressures;

control means operable to select one of said plurality of predetermined reference fluid pressures on the basis of the sensed gas pressure in the suspension unit; and

a second air bag responsive to said selected one of said plurality of reference fluid pressures and operable to urge the valve member towards the maximum throttling position;

wherein the pressure regulator is operable to supply first and second reference pressures, and the pressure sensor provides a first output when the sensed pressure is below a predetermined threshold and a second output when the sensed pressure is above the predetermined threshold, and the control means is operable to provide the first reference fluid pressure to the second air bag when the pressure sensor provides the first output, and to provide the second reference fluid pressure to the second air bag when the pressure sensor provides the second output; and

~~The load sensing system according to claim 64, wherein the a restoring force of the second air bag increases as the valve element approaches its the minimum throttling position.~~

67. (Currently amended) A vehicle including a load sensing and braking system according to claim 63.

68. (Currently amended) A vehicle including a load sensing and braking system according to claim 64.

69. (Currently amended) A vehicle including a load sensing and braking system according to claim 65.

AMENDMENTS TO THE DRAWINGS:

The attached replacement drawing sheet (i.e., Sheet 1 of 6) includes a newly added Fig. 6, which depicts the vehicle of claims 67-69. The replacement drawing sheet also includes original Fig. 1, which has not been amended.

Attachments: Six drawing sheets including one replacement drawing sheet (i.e., Sheet 1 of 6), which includes original Fig. 1 and newly added Fig. 6.